UNITED STATES PATENT AND TRADEMARK OFFICE

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10/812,177	03/29/2004	Keisuke Inoue	SCEI 3.0-170	3379

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2128	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

		Application No.	Applicant(s)
		10/812,177	INOUE, KEISUKE
Office Action Summary		Examiner	Art Unit	
		Saif A. Alhija	2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>05 November 2007</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-89</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-89</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>29 March 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>11/5/07, 1/2/08</u>.

4)☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date. <u>20070418</u>.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1-11, 13-24, 26-31, 33-60, and 63-89 are currently pending.

Claims 1-12, 24-34, and 53-63 were previously elected for examination.

Claims 12, 25, 32, and 61-62 have been cancelled.

Response to Arguments

2.   A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e),

was filed in this application after final rejection. Since this application is eligible for continued examination under

37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action

has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5 November 2007 has been entered.

i)   Applicant's arguments filed 5 November 2007 have been fully considered but they are not

persuasive.

NON-PRIOR ART ARGUMENTS

ii)   Applicants once again argue the undue multiplicity rejection of claims 1-89. Applicants request

that if the rejection is maintained "**the USPTO return the \$1,930 paid in extra claim fees.**" Applicants may direct

issues regarding refund requests to the

> USPTO Office of Finance receptionist in Suite 300 of the Carlyle Place Building,
>
> 2051 Jamieson Ave., Alexandria, VA 22314.
>
> Applicants may also contact the Office of Finance at (571) 273-6500 facsimile number and the
>
> telephone number for customer service and inquiries is (571) 272-6500.

iii)   Applicants have submitted eleven independent claims. Upon examination of these eleven

independent claims the Examiner can find no reason why Applicants have provided numerous repetitions. It is the

purpose of claims to point out and define what an applicant regards as his invention, *and that purpose is not served*

if, as the result of frequent repetitions, they present to the mind a blur rather than a definition.

Applicants take the limitations of a series of operations, associating operations with a thermal attribute,

determining a cooling attribute, scheduling operations in order or performance, generating order of performance, a

plurality of priority queues, first and second operations, and thermal thresholds and then provide 11 alternative

combinations of these features. Applicants have yet to provide any rationale for their eleven independently distinct

claims. Applicants have neither explained their presentation nor have they shown that their purpose is to point out

and define what an applicant regards as his invention. These multiple combinations of limitations do not present a

definition but rather a blur and a maze of confusion. Applicants are respectfully requested to merely explain the

purpose of the eleven independent claims, as well as point out and define what an applicant regards as his invention.

This would serve to further prosecution of the Application. **The Examiner once again notes that Applicants did**

not disagree with the reasoning provided or the rejection itself when they elected claims 1-12, 24-34, and 53-

63 to be examined. Following the Examiners response above the undue multiplicity rejection is maintained.

iv)   Applicant argues the 101 rejections of the claims by one again merely restating the claim language

and declaring that the claims produce a useful, concrete, and tangible result. The merits of the rejection have not

been addressed and the 101 rejections are maintained. The claims do not produce a tangible result. The generating

an order of performance, scheduler, and obtaining an operation from memory do not represent tangible results.

These limitations appear to be mere data manipulation and as such are non-statutory.

v)   Applicants further argue the 101 rejections of the claims by stating that the claims do no positively

recite a compiler. However as per the specification of the instant application the compiler is associated with the

processing devices and components, see paragraph 76 of the instant application, and therefore since the claims recite

these elements and a compiler is associated with these elements the 101 rejections are maintained. The claims are

not being limited by the citation of the specification provided by the Examiner. The Examiner is merely pointing out

that the compiler can encompass software, and the claims need not explicitly recite the compiler since as per the

specification the compiler is a clear part of the processing devices and components which are explicitly recited in the

claims. The Examiner is puzzled by Applicants arguments since the compiler is a key part of Applicants invention,

as can be seen in Figures 2 and 11.

PRIOR ART ARGUMENTS

vi)   Applicant argues that Chauvel does not teach a "cooling attribute." Applicants further argue that

the broadest reasonable interpretation of a cooling attribute should be defined in view of Applicants specification.

First, as noted by Applicants on the top of Page 22 of their remarks dated 5 November 2007, "it is **black letter law**

that it is improper to read limitations from the specification into the claims." (Emphasis added). In response to

applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the

features upon which applicant relies (i.e.,"cooling attribute" as allegedly defined in Applicants specification) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The Examiner also notes that the term "cooling attribute" is mentioned in the speciation in for example paragraphs 14, 20, and 23 but no explicit definition is provided.

Therefore the Examiner once again takes the broadest reasonable definition of the term "cooling attribute" which the Examiner contends is discussed in the reference in a plurality of ways. First, the reference discusses "temperature associated information", see paragraph 11 of Chauvel, as well as temperature thresholds as per paragraph 12 of Chauvel, as well as temperature effects, see paragraph 52 of Chauvel. Following the inherent nature of heat as it relates to IC's following a drop in power provided to an IC the temperature will drop. Second, the references discussion of the dissipation of heat reads on a cooling attribute, see at least paragraph 8 of Chauvel. Further, cooling mechanisms and attributes are inherent in the desktop/portable computers discussed in the reference in the form of fans and heat sinks as well as in the inherent nature of cooling in that following a lack of power supplied to an IC the IC will begin to cool. These arguments are reiterated since Applicants have not argued the merits of this rejection which was provided in the previous office action.

vii)   Applicants argue that a **"queue"** is not **"merely a schedule of tasks"** as asserted in the previous rejection. As per Applicants specification a queue is exemplary defined, not explicitly, as a "set of operations" **(See Paragraph 24 of the specification of the instant application).** First, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e.,"queue" as defined in Applicants specification) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). The Examiner is puzzled and respectfully requests clarification of the argument that a "set of operations" differs from a "schedule of tasks." Applicants also argue that Chauvel does not teach a dual queue configuration.

Based on the broadest reasonable definition of the term "queue", as a "set of operations" or a "schedule of tasks", Chauvel in paragraph 49, discusses task rescheduling for multiple processors, MPU/DSP, based on priority. Multiple processors as well as utilizing energy consumption as a criterion for scheduling of multiple tasks in the

multiple processors can be seen at the end of paragraph 30 as well paragraph 31 of Chauvel. This anticipates

multiple queues which therefore anticipates a dual queue. The rejections are therefore maintained.

EXAMINERS NOTE

viii)   The Examiner has cited particular columns and line numbers in the references applied to the

claims for the convenience of the applicant. Although the specified citations are representative of the

teachings of the art and are applied to specific limitations within the individual claim, other passages and

figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully

consider the references in their entirety as potentially teaching all or part of the claimed invention, as well

as the context of the passage as taught by the prior art or disclosed by the Examiner.

ix)   The Examiner respectfully requests, in the event the Applicants choose to amend or add new

claims, that such claims and their limitations be directly mapped to the specification, which provides

support for the subject matter. This will assist in expediting compact prosecution. Further the Examiner

respectfully encourages Applicants to avoid potential Double Patenting issues following any amendment

as relating to co-pending application 10/812155.

x)   Further, the Examiner respectfully encourages Applicants to direct the specificity of their response

with regards to this office action to the broadest reasonable interpretation of the claims as presented. This

will avoid issues that would delay prosecution such as limitations not explicitly presented in the claims,

intended use statements that carry no patentable weight, mere allegations of patentability, and novelty that

is not clearly expressed.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions
and requirements of this title.

MPEP 2106 recites:

The claimed invention as a whole must accomplish a practical application. That is, it must produce a

"useful, concrete and tangible result" State Street 149 F.3d at 1373, 47 USPQ2d at 1601-02. A process that consists

solely of the manipulation of an abstract idea is not concrete or tangibles. See In re Warmerdam, 33 F.3d 1354,

1360, 31 USPQ2d 1754, 1759 (Fed.Cir. 1994). See also Schrader, 22 F.3d at 295, 30 USPQ2d at 1459.

3.   **Claims 1-11, 24, 26-31, 33-34, 53-60, and 63 are rejected** under 35 U.S.C. 101 because the claimed

invention is directed to non-statutory subject matter.

      i)   Claim 1 recites providing, associating, and scheduling operations. Therefore the claim does not

produce a useful, concrete, and tangible result. The resultant of the claims is neither stored, nor provided to a user,

etc., for example, and therefore does not contain a concrete and tangible result. **(See Section 2.iv above)**

      ii)   Claim 24 recites a computing device with a plurality of associated operations. The association of

operations appears to be mere data manipulation and therefore the claims do not produce a useful, concrete, and

tangible result. **(See Section 2.iv above)**

      iii)   With respect to claims 1-12, 24-34, and 53-63, paragraph 74 of the instant application recites,

"The compiler may be implemented in software, firmware, hardware or a combination of the above." Therefore the

claimed limitations may be entirely software and are therefore non-statutory since "software per se" does not fall

under an approved statutory category. **(See Section 2.v above)**

      Appropriate correction is required.

      All claims dependent upon a rejected base claim are rejected by virtue of their dependency.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming
the subject matter which the applicant regards as his invention.

4.   **Claims 1-11, 13-24, 26-31, 33-60, and 63-89 are rejected** under 35 U.S.C. 112, second paragraph, as

being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention.

      i)   Claims 1-11, 13-24, 26-31, 33-60, and 63-89 are rejected by virtue of undue multiplicity. Section

2173.05(n) of the MPEP states *"37 CFR 1.75. Claim(s). (a) The specification must conclude with a claim*

particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention or

discovery. (b) More than one claim may be presented provided they differ substantially from each other and are not

unduly multiplied. Where, in view of the nature and scope of applicant's invention, applicant presents an

unreasonable number of claims which are repetitious and multiplied, the net result of which is to confuse rather

than to clarify, a rejection on undue multiplicity based on 35 U.S.C. 112, second paragraph, may be appropriate. As

noted by the court in In re Chandler, 319 F.2d 211, 225, 138 USPQ 138, 148 (CCPA 1963), "applicants should be

allowed reasonable latitude in stating their claims in regard to number and phraseology employed. The right of

applicants to freedom of choice in selecting phraseology which truly points out and defines their inventions should

not be abridged. Such latitude, however, should not be extended to sanction that degree of repetition and

multiplicity which beclouds definition in a maze of confusion. The rule of reason should be practiced and applied on

the basis of the relevant facts and circumstances in each individual case." See also In re Flint, 411 F.2d 1353, 1357,

162 USPQ 228, 231 (CCPA 1969)."

The now 84 claims and 11 independent claims contain limitations from multiple embodiments that are

assorted into multiple different independent claims in an unclear manner and result in a "maze of confusion." The

Examiner contacted Applicants representative, Andrew Zidel, Reg No. 45,256, to allow Applicants the opportunity

to provide a preliminary amendment to resolve the undue multiplicity. Applicants representative elected claims 1-

12, 24-34, and 53-63 to be examined. **(See Section 2.iii above)**

All claims dependent upon a rejected base claim are rejected by virtue of their dependency.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the

rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5.   **Claims 1-11, 24, 26-31, 33-34, 53-60, and 63 are rejected** under 35 U.S.C. 102(b) as being clearly

anticipated by **Chauvel et al. "Temperature Field Controlled Scheduling for Processing Systems", U.S. Patent**

Application No. 2002/0065049.

Regarding Claim 1:

The reference discloses A method of scheduling operations to be performed by a component having a thermal threshold comprising:

providing a plurality of operations to be performed by the component; (**Abstract. Figure 11. Paragraph 52**)

associating the operations with a thermal attribute, the thermal attribute representing a value related to a heat amount expected to be generated or incurred by the component during performance of the operations; (**Abstract. Figure 11. Paragraph 52**)

determining a cooling attribute; (**Paragraph 8**)

and scheduling the operations in an order of performance based on the thermal attribute and the cooling attribute so that the thermal threshold is not exceeded. (**Abstract. Figure 11. Paragraph 52**)

generating the order of performance for use in execution of the operations. (**Paragraph 49**)

Regarding Claim 2:

The reference discloses The method of claim 1, further comprising measuring the thermal attribute with a temperature sensing means. (**Paragraph 53, Temperature Measurement**)

Regarding Claim 3:

The reference discloses The method of claim 1, further comprising estimating the thermal attribute based upon power consumption of the component. (**Paragraph 3**)

Regarding Claim 4:

The reference discloses The method of claim 3, wherein estimating the thermal attribute further includes performing a circuit simulation of the component. (**Paragraph 35, "experimentally or by computer aided software design."**)

Regarding Claim 5:

The reference discloses The method of claim 3, wherein estimating the thermal attribute further includes determining a power density of the component. **(Paragraph 29, "power management tasks")**

Regarding Claim 6:

The reference discloses The method of claim 1, further comprising the component executing the operations in the order of performance. **(Paragraph 32)**

Regarding Claim 7:

The reference discloses The method of claim 6, wherein the component includes a plurality of processing devices and the thermal attribute is an aggregate thermal attribute of selected ones of the processing devices that execute the operations. **(Claim 1)**

Regarding Claim 8:

The reference discloses The method of claim 1, wherein the component includes a plurality of processing devices, each of the processing devices has an individual thermal threshold, and the thermal attribute includes a plurality of individual thermal attributes, each individual thermal attribute being associated with one of the processing devices. **(Claim 1)**

Regarding Claim 9:

The reference discloses The method of claim 8, further comprising:

selecting at least some of the processing devices to execute the operations; **(Figure 3a-3b. Paragraph 34-35)**

monitoring the selected processing devices; **(Figure 3a-3b. Paragraph 34-35)**

and routing the operations among the selected processing devices so that the individual thermal thresholds are not exceeded. **(Figure 3a-3b. Paragraph 34-35)**

Regarding Claim 10:

The reference discloses The method of claim 1, wherein the component includes a plurality of processing devices and the thermal attribute is allocated among the plurality of processing devices. **(Figure 3a-3b. Paragraph 34-35)**

Regarding Claim 11:

The reference discloses The method of claim 1, further comprising determining the thermal attribute by:

(i) determining power consumption of the component; **(Figure 3a-3b. Paragraph 34-35)**

(ii) determining a footprint of the component; **(Figure 3a-3b. Paragraph 34-35)**

(iii) dividing the power consumption of the component by the footprint of the component to obtain per-area power consumption; **(Paragraph 12, 49)**

and (iv) multiplying the per-area power consumption by a thermal estimation constant. **(Paragraph 12, 49)**

Regarding Claim 24:

The reference discloses A processing system comprising:

a computing device including a component; **(Abstract. Figure 11. Paragraph 52)**

a plurality of operations to be performed by the component, at least some of the operations including a priority; **(Abstract. Figure 11. Paragraph 52)**

and at least one thermal attribute associated with the component and a selected one of the operations, the thermal attribute being indicative of a change in temperature of the component after performance of the selected operation. **(Abstract. Figure 11. Paragraph 52)**

a plurality of priority queues, each priority queue including a first queue and a second queue, the first queue for storing a first set of the operations and the second queue for storing a second set of the operations; **(Paragraph 49)** and

a scheduler operable to assign at least one of the operations to the component depending on the thermal attribute. **(Paragraph 49)**

Regarding Claim 26:

The reference discloses The processing system of claim 24, wherein the scheduler is operable to retrieve a chosen one of the operations from a storage location depending upon the thermal attribute. (Abstract. Figure 11. Paragraph 52)

Regarding Claim 27:

The reference discloses The processing system of claim 24, wherein the component includes a plurality of sub-components, the scheduler is a simple scheduler, and the thermal attribute is a total thermal attribute associated with the component and not associated with the plurality of sub-components. (Paragraph 9, 51)

Regarding Claim 28:

The reference discloses The processing system of claim 24, wherein the component includes a plurality of sub-components, the scheduler is an advanced scheduler, and the thermal attribute is further associated with at least some of the sub-components. (Paragraph 12, 49)

Regarding Claim 29:

The reference discloses The processing system of claim 24, wherein the component is a processing device and the scheduler is integrated with the processing device. (Abstract. Figure 11. Paragraph 52)

Regarding Claim 30:

The reference discloses The processing system of claim 24, wherein the selected operation comprises a task, and the thermal attribute is a task thermal attribute. (Abstract. Figure 11. Paragraph 52)

Regarding Claim 31:

The reference discloses The processing system of claim 24, wherein the task thermal attribute is based on at least one of an operating frequency of the component, a thermal attribute of the component, and a cooling attribute. (Paragraph 8, 39)

Regarding Claim 33:

The reference discloses The processing system of claim 24, further comprising a scheduler operable to assign at least some of the operations to either the first or the second queue in a selected one of the priority queues based on the priorities of the operations and on the thermal attribute. **(Paragraph 30)**

Regarding Claim 34:

The reference discloses The processing system of claim 33, wherein the scheduler is further operable to retrieve a chosen one of the operations from the first queue or the second queue of the selected priority queue depending upon the thermal attribute and the priority of the chosen operation. **(Paragraph 30)**

Regarding Claim 53:

The reference discloses A processing apparatus for processing operations associated with thermal attributes, comprising:

a memory for storing a first operation and a second operation, the first operation having a thermal attribute exceeding an operating threshold, and the second operation having a thermal attribute not exceeding the operating threshold; **(Abstract. Figure 11. Paragraph 52)**

and a plurality of processing devices for executing the first and second operations, at least a selected one of the processing devices comprising a sub-processing unit, and at least some of the processing devices having a thermal threshold and access to the memory; **(Abstract. Figure 11. Paragraph 52)**

wherein, if the thermal threshold of the selected processing device is not exceeded, the selected processing device is operable to obtain the first operation from the memory for processing and to process the first operation, **(Abstract. Figure 11. Paragraph 52)**

and if the thermal threshold of the selected processing device is exceeded, the selected processing device is operable to obtain the second operation from the memory for processing and to process the second operation, and **(Abstract. Figure 11. Paragraph 52)**

wherein the memory comprises a local store in the sub-processing unit, and the local store includes a first

queue for managing the first operation and a second queue for managing the second operation. **(Paragraph 49)**

Regarding Claim 54:

The reference discloses The processing apparatus of claim 53, wherein at least some of the processing

devices are processing elements. **(Figure 3a-3b. Paragraph 34-35)**

Regarding Claim 55:

The reference discloses The processing apparatus of claim 54, wherein at least some of the processing

elements further comprise at least one sub-processing unit. **(Figure 3a-3b. Paragraph 34-35)**

Regarding Claim 56:

The reference discloses The processing apparatus of claim 55, wherein each sub-processing unit includes a

floating point unit, an integer unit and a register associated with the floating point unit and the integer unit. **(Figure**

3a-3b. Paragraph 34-35)

Regarding Claim 57:

The reference discloses The processing apparatus of claim 56, wherein each sub-processing unit further

includes a local store. **(Figure 3a-3b. Paragraph 34-35)**

Regarding Claim 58:

The reference discloses The processing apparatus of claim 54, wherein at least some of the processing

elements further comprise a processing unit and a plurality of sub-processing units associated with the processing

unit. **(Figure 3a-3b. Paragraph 34-35)**

Regarding Claim 59:

The reference discloses The processing apparatus of claim 58, wherein the sub-processing units each further include a local store. (Figure 3a-3b. Paragraph 34-35)

Regarding Claim 60:

The reference discloses The processing apparatus of claim 53, wherein a first one of the processing devices is operable to exchange operations with a second one of the processing devices depending upon the thermal threshold of the first processing device. (Figure 3a-3b. Paragraph 34-35)
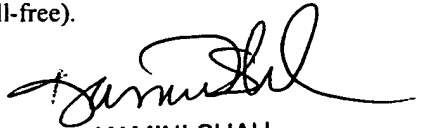
Regarding Claim 63:

The reference discloses The processing device of claim 53, wherein the first and second operations are maintained in the memory in a timesharing arrangement. (Paragraph 30)

Conclusion

7.   All Claims are rejected.

8.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Saif A. Alhija whose telephone number is (571) 272-8635. The examiner can normally be reached on M-F, 11:00-7:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached on (571) 272-22792279. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. *Informal or draft communication, please label PROPOSED or DRAFT,* can be additionally sent to the Examiners fax phone number, (571) 273-8635.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KAMINI SHAH
SUPERVISORY PATENT EXAMINER

SAA

January 31, 2008